

EARL DE GREY'S CONVERSAZIONE.

LORD DE GREY, and his accomplished Countess, asked half London to meet the Institute of Architects on Wednesday evening last, and dispensed their hospitality with their accustomed kindness. The tables presented a fine collection of sketches, and the rooms were crowded, including a larger number of fair ladies than we remember on previous occasions. Prince Albert arrived about half-past ten, and remained there some time.

SUNDERLAND HARBOUR.

INSTITUTION OF CIVIL ENGINEERS.

At a meeting of the institution on the 11th inst., the following paper by Mr. J. Murray was read, "An account of the progressive improvements of Sunderland Harbour and the River Wear." The memoir commenced with an account of the coal trade; license having been granted by King Henry III., in 1239, to the good men of Newcastle, to dig coals and stones in the common soil of the town and outside the walls. In 1384, permission was given to export the produce of the mines. During the civil wars in 1644, the export from Sunderland was greatly increased, as no coals were permitted to be brought from Newcastle to London, on account of that town being a stronghold of the royalist party. Between 1704 and 1711, the average annual export had reached 174,264 tons, and that of the last year, 1846, was 1,540,000. The census in 1802 gave 19,100 inhabitants, whilst the town at present contains upwards of 60,000 persons.

The management and improvement of the River Wear was naturally an object of great solicitude, as its entrance was much exposed. In 1669, Charles II. granted a patent to Edward Andrew, to build a pier, and erect light-houses, and forbade the casting of ballast, &c., into the river. An Act was obtained in 1717, appointing river commissions, for the conservancy of the harbour, &c., giving power to raise money by tonnage duty on ships entering the port. The jurisdiction of the commissioners is limited by the last Acts to an extent of about seven miles. Little was done to improve the river until 1719; at that time the entrance was very intricate, and the two main channels were both very shallow. The south pier was commenced in 1723, for the purpose of directing the full force of the current against the bar. Busheigh and Thompson's map, published in 1737, shows the bad state at that period. Labeley, the engineer of Westminster-bridge, was called upon for his advice in 1748. He pointed out the principal causes of the then state of the river, and suggested the contraction of the channel at the worst places, so as to increase the scouring power of the stream, deepening the Still by manual labour and by dredging engines, and constructing a north pier, so as to leave a distance of 200 yards between the point of that and the south pier. He stated, however, that, "after all, as no man could force the consequences of erecting the north pier, if it caused a greater obstruction than it removed, it must be unbuilt and taken up." He recommended also throwing all the force of the stream into one channel, and cutting away the bar by ballast-engines, and cautioned the commissioners against ever permitting sluices or locks to be placed upon their river.

Mr. Vincent, of Scarborough, was appointed engineer to the trust in 1752. Mr. Robin succeeded him in 1755, and under them the south channel was so much improved, that the north channel was warped up with sand. Mr. Smith, of Sheffield, proposed sundry further improvements in 1758. Mr. Wooller also reported in 1767 on Mr. Robin's plan of building moles on the north and south rocks. The work was commenced, and was abandoned for reasons which do not appear. Mr. Robert Shout was appointed in 1779, and in 1780 Mr. Smeaton's advice was sought. He recommended the prolongation of the piers, on Mr. Shout's plan. The consequence of the constant extension of the south pier seems to have been the warping up of sand into the harbour's mouth. Two timber jetties were therefore suggested by Mr. Shout in 1786, and were the origin of the present north pier. The effects

produced were very beneficial, as in a few months a deep and spacious channel was formed by the rush of the water. The timberwork was then cased with stone, and the work was continued by Mr. Pickernell, who succeeded Mr. Shout in 1795. He also erected the light-house at the point of the pier. The south pier was also extended. Mr. Ralph Dodd also reported on the works, and recommended chiefly the formation of a wet dock on the present potato-gurth. Mr. Mathew Shout became the engineer in 1804, and he reduced some of the old works, whilst he extended the north pier. Mr. Jessop made a report in 1807, recommending further extension of the south pier, the reduction of the width of the entrance to 300 feet, and the construction of some embankment walls at various points, to increase the velocity of the stream, and at the same time form a scouring basin. Mr. Giles made a survey under the directions of Mr. Rennie, which was completed in 1823 under Sir John Rennie. This very complete plan is published, and was exhibited. In 1821 Mr. Rennie recommended certain lines of extension of the piers, and the reconstruction of some parts of the works with sounder materials, with other precautionary measures calculated to improve the port, some of which were carried into effect by Mr. Milton. Mr. John Murray succeeded Mr. Milton, and carried on the designs of Mr. Rennie and Sir John Rennie with great fidelity, using the diving-bell for part of the foundations. The north pier was thus extended to a total length of 1,770 feet. He also removed in an entire mass the lighthouse to the extremity of the intended pier. In 1843, the south pier, being in a ruinous state, was partially removed, and rebuilt in a direction better calculated to break the swell of the sea.

The plans exhibited the changes that had taken place in the estuary, improving the channel, and giving at least 4 feet of water over the bar at low water of spring tides. It is narrow, and shelving, with deep water on each side. Formerly the large ships took in part of their cargoes beyond the bar, but now they all load within it, even when drawing 15 to 18 feet; and as many as a hundred ships have entered and departed from the harbour in one tide. A longitudinal section of the river shewed some remarkable changes in the bed, and corresponding improvements in the heights of the tides, affording, at the same time, increased facility for the drainage of the country around. Dredging has been carried on to a great extent, and from 100,000 to 150,000 tons have been raised annually.

The want of floating docks has been much felt, and several plans have been projected for them by Messrs. Dodds, Jessop, Stevenson (of Edinburgh), Giles, Bruzel, G. Rennie, Walker, and J. Murray, but none have yet been executed. A small dock of about six acres in extent was finished in 1835.

A south dock, with tide basins, is now in course of construction under the direction of Mr. Robert Stephenson and Mr. Murray; and by its means it is anticipated that Sunderland will become the first port, as to depth of water at its entrance, between the Humber and the Frith of Forth.

Correspondence.

WHY SHOULD THE CITY OF LONDON BE EXCLUDED FROM THE OPERATION OF THE "BILL OF HEALTH?"

Is it the Utopia of health? and is the "bill" an act of supererogation with respect to it?

Surely any one who has resided in the "city" will readily answer in the negative. Is it on account of what has been and is being done towards the improvement of its sanitary condition generally? Perhaps the corporation have made out a strong case to the Government on this ground; but what they could bring forward I cannot imagine, and should like to be enlightened on the subject.

Is the city so well supplied (as to quality, quantity, and price) with gas and water as to need no alteration? With regard to the first article (gas), the immense profits that are obtained by its supply clearly shew that a considerable reduction in its price may be afforded; indeed, in some of the outskirts of London, where there is not so great a demand for gas, it is supplied at a much lower rate; and this is

to be attributed to a state of things amounting almost to a monopoly, as one company is allowed the almost exclusive supply of the city. There is also very much room for improvement in its quality.

As to the second article, water, the present state of things is very well known, as the gross monopoly in its supply to which we are subject presents one of the most crying evils of the day, which is the more remarkable, as its existence has been so long known. When any new or burdensome tax is imposed, the public voice is immediately raised against it; but in this case we are paying a heavy tribute merely to line the pockets of certain shareholders in a joint stock company; and I may safely affirm, that the supply of water in the city is *niggard in quantity, stretched in quality, and exorbitant in price*.

Is the system of sewerage in the city so complete that we can point to it with pride, and say that there is no street, lane, or alley that is not well drained?

I wish that this were the case; but that it is not I have learnt from personal experience as an inhabitant of the city. I am sure our corporation have no occasion to boast of what they have done, but rather to regret what has not been done. The Commissioners of Sewers should long ago have applied to Parliament for powers to compel all landlords to make drains from their houses wherever sewers exist, and they should also have obtained an Act to enable them to apply the sewage manure to agricultural purposes, as proposed by the London Sewage Company, by which means they would have derived a very considerable revenue,—sufficient, I firmly believe, to cover all sewer rates, and to form a fund for the formation of new streets, or other sanitary improvements.

Certainly the system of paving and scavenging in the city has been improved of late; but it is still very far from what it ought to be, particularly the scavenging.

I will conclude with an old, and in this case very applicable, proverb:—"What is good for the goose is good for the gander."—earnestly recommending our representatives in Parliament not to allow the city of London to be excluded from the "Health of Towns Bill;" and am, yours, &c.

AN INHABITANT OF THE CITY.

Miscellaneous.

THE STATUE ON THE ARCH.—Much as the statue has been "taken off," it is not yet taken down. How much longer is taste to be outraged and public opinion set at naught? Lord Morpeth has assured the House of Commons, that it shall be removed, and Mr. Harry, as we know, has designed a pedestal for it, to be erected in Waterloo-place, yet still there it stands, and members of the committee begin to shake their heads knowingly, and think Government will yet permit the continuance of the abomination. They may rely upon it that if it be found that the Government are really winking at it, the people will wake up.

CAUTION TO BUILDERS, &c.—In the Court of Common Pleas, on Wednesday week, "Barnes v. Ward," an action brought under the recent statute, 9 and 10 Vict. cap. 83, was tried. Jane Barnes, a charwomen, had fallen into an unguarded area, in October last, in the night-time, and was killed. Proceedings were brought for damages to her husband and children. The case was tried before Judge Colman, and a verdict for 300*l.* was given against the owner of the houses—100*l.* to the husband, 25*l.* each to two daughters and 50*l.* to a son.

ENGINEERING.—A correspondent says,—"There is a new code of laws and regulations coming out immediately, with regard to engineers in the Government service, that will demand a much more respectable knowledge of the principles of engineering than is generally at present acquired, the salary being augmented to 16*l.*, 18*l.*, and 20*l.* per month, thirteen months in the year, with a grade still higher, at 25*l.* per month, so as to induce the best talent to enter the service."

ART-UNION PURCHASES.—"Our Saviour, subject to his Parents at Nazareth," by Mr. Herbert, R.A., has been added, with many others, to the list of purchases.